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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/619,917	07/20/2000	Toshio Nomura	49982(551)	3874

21874 7590 02/06/2006

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EXAMINER

TRAN, NHAN T

ART UNIT	PAPER NUMBER
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2615

DATE MAILED: 02/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/619,917

Applicant(s)

NOMURA ET AL.

Examiner

Nhan T. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/10/2006 & 11/10/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 6-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/10/2006 & 11/10/2005 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-3 and 6-10 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 6, 7 & 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christian et al (US 6,421,462 B1) in view of Parulski et al (US 5,914,748).

Regarding claim 1, Christian discloses an image pickup apparatus (Fig. 1) taking a first image including *only* a background but not an object (a background only image 42, Fig. 3) and a second image including the object (a background including an object image 44; Fig. 3), and having a shutter button for releasing a shutter (see col. 9, lines 59-64, wherein "a shutter button" is inherent, either located in the camera 12 or on image processing system 16, in order for the imaging apparatus to function as disclosed);

an output selecting portion (14, 16 shown in Fig. 1) outputting only a single image taken as said first image (the single background image 42; Fig. 3) in a first time and outputting an image taken as said second image (the background including the object 44; Fig. 3) a second time after the first time (see col. 8, lines 59-64), wherein the first image is updated by using an image of a region other than the object region of the second image every time a prescribed period is elapsed (see col. 9, lines 11-20 and col. 8, lines 55-67, wherein the background image 42 is updated by using the background portion of the image 44 without using the object area, e.g., the person, after a prescribed period of 5 seconds is elapsed).

Although Christian implicitly discloses a time measuring portion for measuring a time (col. 8, lines 62-67), Christian does not clearly disclose that the time measuring portion for measuring a predetermined time after the shutter is pressed and that a first image is taken when a first predetermined period of time is measured and a second image is taken when a second predetermined period

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of time is measured. However, as taught by Parulski, in a composite mode of an imaging apparatus, an image of a background only and an image including the background and an object are taken separately and automatically after a predetermined period of time (i.e., every 10 seconds) *after the shutter button is pressed* (see Parulski, Figs. 3B & 4B and col. 4, lines 50-55).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the imaging system in Christian in view of the teaching of Parulski such that the first image would be taken and outputted when a first predetermined period of time being measured by a time measuring portion, and the second image would be taken and outputted when a second predetermined period of time being measured by the time measuring portion after the first period of time so as to enable a timing capture mode which would be advantageous in that the user/photographer would not have to intervene the apparatus operation during the capturing sessions.

Regarding claim 2, Christian further discloses a region extracting portion (combined blocks 18-26; Fig. 1) using said first and second images for outputting information of an object region of said second image; and a recording portion (memory 31; Fig. 1, col. 7, line 64 – col. 8, line 5) recording positional information data (i.e., the person's figure represented by pixel signals) of said object region, and one of data representing said second image and image data included in said object region onto a recording region (see Christian, Figs. 3-7, col. 10, line 10 – col. 14, line 67).

Regarding claim 3, as analyzed in claim 2, Christian discloses a region extracting portion using said first and second images for outputting positional information of an object (the person's figure) of the second image, and a recording portion for recording image data.

Christian does not teach an image composing portion replacing an image in a region other than the object region of said second image with a prepared background image, and recording data of the image composed by said image composing portion onto a recording medium. Parulski teaches that after an object is extracted from a background, an image composing portion is implemented to replace the background image (a region other than the object region) with a prepared background (selected from pre-stored background image in step 30; Fig. 1) to create a new composite image (step 26) for recording into a recording medium (memory or hard drive). See Parulski, Fig. 1 and col. 2, lines 31-49.

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Christian and Parulski to arrive at the Applicant's claimed invention so that an object image would be quickly and easily composed with any pre-stored background suitable for creating virtual photography without requiring a special colored background and an experienced user as suggested by Parulski, col. 1, lines 31-35.

Regarding claim 6, see the analysis of claim 2 or 3.

Regarding claim 10, see the analysis of claim 1.

Regarding claim 7, although Parulski teaches that the first and second images are separately taken at predetermined time periods, Parulski and Christian do not explicitly teach a notifying portion notifying a timing at which pickup of the first image is finished and a timing at which pickup of the second image is started. An Official Notice is taken that it is well known in the art to provide an imaging apparatus a notifying portion for notifying the timing of a picture-taking event by flashing an LED or generating buzzing sound similar to conventional self-photographing fashion.

Therefore, it would have been obvious to one of ordinary skill in the art to include the notifying portion notifying a timing at which pickup of the first image would be finished and a timing at which pickup of said second image would be started so as to properly alert the user to move an object into the field of view of camera for the capture of the second image, thereby providing better prepare for expression of the object.

4. Claims 8 & 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christian and Parulski as applied to claims 1-3 and in further view of Aono et al (US 5,267,333).

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Regarding claims 8 & 9, Christian and Parulski are silent about recording image data in a compressed form. However, Aono teaches that image data of background and foregrounds or objects are recorded in compressed form so as to reduce quantity of data used in image synthesis without impairing the quality of image. See Aono, col. 3, lines 1-22.

Therefore, it would have been obvious to one of ordinary skill in the art to implement a compression engine in the combined apparatus of Christian and Parulski to compress image data before recording onto the recording portion so that quantity of data used in image synthesis would be reduced for memory saving without impairing the quality of the image.

Conclusion

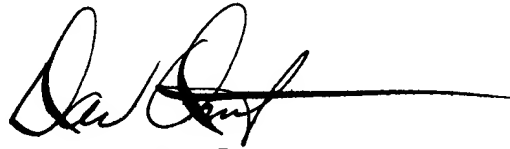
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhan T. Tran whose telephone number is (571) 272-7371. The examiner can normally be reached on Monday - Thursday, 7:30am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NT.

A handwritten signature in black ink, appearing to read 'David Ometz', with a long horizontal line extending to the right.

DAVID OMETZ
SUPERVISORY PATENT EXAMINER